

We claim:

1. A method for associating information pertaining to consumption of a utility commodity, the method comprising:

5 receiving information corresponding to the provider and at least one entity that receives the utility commodity from the provider;

forming a tree comprised of a root node and at least one leaf node emanating from the root node, the root node
10 corresponding to the provider and the at least one leaf node corresponding to the at least one entity;

associating a meter proxy with the at least one leaf node, the meter proxy containing data from meter readings, the meter proxy comprising an interface to data generated by a
15 physical utility meter;

associating at least some of the received information corresponding to the provider and the at least one entity with the root nodes and the at least one leaf node, respectively, and

20 associating actions relating to the providing of one of the utility commodity with each of the nodes based on the received information associated therewith.

2. The method of claim 1, wherein the meter proxy provides
25 meter change information regarding the physical utility meter.

3. The method of claim 1, wherein the meter proxy provides data relating to load profiles regarding the physical utility meter.

5

4. The method according to claim 1, further comprising the steps of:

segmenting the tree into segments having at least one node therein;

10 assigning a unique identifier to each of the segments;
associated at least one segment, if necessary, with the at least one user based on the identifier of the at least one segment; and

allowing the at least one user access to only the at
15 least one segment that the user is associated with.

5. The method of claim 1 further comprising associating the meter proxy with a set of active elements and associating the set of active elements with the at least one leaf node.

20

6. The method of claim 1 wherein the meter proxy further comprises an interface to data generated by an electricity meter.

7. A system comprising:

a data acquisition system operable to acquire energy consumption data from a plurality of electricity meters;

5 a storage device operable to store at least some of the acquired energy consumption data;

a data processing system operably coupled to the storage device, the data processing system operable to

receive information corresponding to a provider of
10 energy and at least one entity that receives one of the energy from the provider;

form a tree comprised of a root node and at least one leaf node emanating from the root node, the root node corresponding to the provider and the at least one leaf node
15 corresponding to the at least one entity;

associate energy consumption data with at least one node of the tree;

associate at least some of the received information corresponding to the provider and the at least one entity with
20 the root nodes and the at least one leaf node, respectively, and

associate actions relating to the providing of one of the utility commodity with each of the nodes based on the received information associated therewith.

25

8. The system of claim 7, wherein the data processing system is further operable to associate a meter proxy to the at least one node of the tree, the meter proxy comprising an interface
5 to the energy consumption data stored in the storage device.

9. The system of claim 8, wherein the meter proxy is further associated with a physical electricity meter.

10 10. The system of claim 9, wherein the meter proxy provides meter change information regarding the physical electricity meter.

11. The system of claim 9, wherein the meter proxy provides
15 data relating to load profiles regarding the physical electricity meter.

12. The system of claim 11, wherein the data processing system is further operable to generate time of use metering
20 information based on the data relating to load profiles from the meter proxy, the time of use metering information including charges for energy consumption based on the time period in which the energy was consumed.

25 13. The system of claim 7, wherein the data processing system is further operable to generate time of use metering information based on the energy consumption data, the time of

use metering including charges for energy consumption based on the time period in which the energy was consumed.

14. A method for associating information pertaining to
5 consumption of a utility commodity, the method comprising:
receiving information corresponding to the provider, at least one parent entity that has at least one subordinate entity that receives the utility commodity from the provider, and the at least one subordinate entity;

10 forming a tree comprised of a root node, at least one branch node emanating from the root node, and at least one leaf node emanating from the at least one branch node, the root node corresponding to the provider, the at least one branch node corresponding to the at least one parent entity,
15 and the at least one leaf node corresponding to the at least one subordinate entity;

associating a meter proxy with at least one node, the meter proxy containing data from meter readings, the meter proxy comprising an interface to data generated by a physical
20 utility meter;

associating at least some of the received information corresponding to the provider, the at least one parent entity, and the at least one subordinate entity with the root node, the at least one branch node, and the at least one leaf node,
25 respectively, and

associating actions relating to the providing of one of the utility commodity with each of the nodes based on the received information associated therewith.

5

15. The method according to claim 14, wherein the at least one parent entity receives the utility commodity.

10 16. The method according to claim 14, wherein at least one of the at least one branch node and the at least one leaf node is associated with at least one contract pertaining to the utility commodity provided by the provider.

15 17. The method according to claim 14, wherein at least one of the at least one branch node and the at least one leaf node is associated with reports that specify billing to be paid the provider for providing the utility commodity.

20 18. The method according to claim 14, further comprising the step of generating an input mapping for a given action that maps a data type of the meter proxy with a data type compatible with the given action.

25 19. The method according to claim 18, further comprising comprising the step of interconnecting some of the actions associated with any of the nodes to form a sequence of actions necessary to accomplish a given task.

20. The method according to claim 19, wherein said given task comprises generating a billing report.

5 21. The method according to claim 14, further comprising:
obtaining energy consumption data from the physical
utility meter;

storing energy consumption data in a data storage; and
associating the energy consumption data in the data
10 storage with the meter proxy;

providing an input mapping of a data format of the energy
consumption data employed by the meter proxy to a data format
of a given task.

15